

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Masahiko Sisido et al.

Application No.: 10/527,156

Confirmation No.: 1834

Filed: March 9, 2005

Art Unit: 1635

For: METHOD OF AMINOACYLATING tRNA

Examiner: D. H. Shin

**INFORMATION DISCLOSURE STATEMENT (IDS)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Submitted herewith on Form PTO-1449 or PTO/SB/08 is a listing of documents known to Applicant in order to comply with Applicant's duty of disclosure pursuant to 37 CFR 1.56. Applicant respectfully requests that the listed documents be considered by the Examiner and formally be made of record in the present application and that an initialed copy of Form PTO-1449 or PTO/SB/08 be returned in accordance with MPEP §609.

- A copy of each listed document is being submitted to comply with the provisions of 37 CFR §§1.97 and 1.98
- As provided in 37 CFR §1.98(d), copies of the documents are not being provided since they were previously cited by or submitted to the Patent Office in parent application Serial No. \_\_\_\_\_, filed \_\_\_\_\_.
- A copy of each listed document, that was cited in the International Search Report or International Preliminary Examination Report attached hereto, should have been provided to the U.S. Patent and Trademark Office by the WIPO, and the provisions of 37 CFR §§1.97 and 1.98 should have been complied.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicant does not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* prior art reference against the claims of the present application.

1. This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits in the present application. No fee is required. If, however, a first Office Action on the merits is issued, no fee is required in view of the statement below (37 C.F.R. § 1.97(b)).

a. Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR § 1.97(e)(1).

b. No item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in this Information Disclosure Statement. 37 CFR § 1.97(e)(2). The Certification under 37 CFR § 1.97(e)(2) is attached hereto.

The Patent Office is **NOT AUTHORIZED** to charge deposit account account 18-0013 in the amount of \$180.00 under 37 CFR §§ 1.97(d)(2) and 1.17(p). However, **ONLY IF** a notice of allowance under 37 CFR § 1.311 or an action that otherwise closes prosecution in the application has been mailed prior to filling of this under 37 CFR §§ 1.97(d)(2) and 1.17(p) in view of the statement above under 37 CFR § 1.97(e). Please charge any fee deficiency or credit any overpayment to Deposit Account No. 18-0013 as needed to ensure consideration of the disclosed information.

2. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 18-0013 as needed to ensure consideration of the disclosed information.

Dated: June 2, 2006

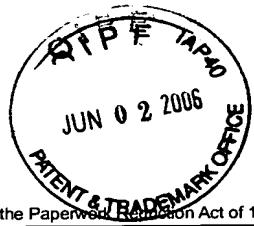
Respectfully submitted,

By \_\_\_\_\_

Lee Cheng

Registration No.: 40,949

RADER, FISHMAN & GRAUER PLLC  
1233 20th Street, N.W.  
Suite 501  
Washington, DC 20036  
(202) 955-3750  
Attorney for Applicant



PTO/SB/08a/b (07-05)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				<b>Complete if Known</b>	
				Application Number	10/527,156-Conf. #1834
				Filing Date	March 9, 2005
				First Named Inventor	Masahiko Sisido
				Art Unit	1653
				Examiner Name	D. H. Shin
Sheet	1	of	2	Attorney Docket Number	SAE-0031

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
BA	WO 03/059926 A2	07-24-2003	University of Massachusetts		
BB	WO 03/059926 A3	07-24-2003	University of Massachusetts		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
	CA	European Search Report, 4/18/2006			
	CB	"Aminoacylation of tRNA by antisense molecule", by Ninomiya et al. Nucleic Acids Research. Supplement (2001) 2002. No. 2, 2002, pages 101-102, XP009064184 *the whole document*			
	CC	"T4 RNA Ligase Mediated Preparation of Novel "Chemically Misacylated" tRNA by", Heckler et al. BIOCHEMISTRY. 27 MAR 1984, vol. 23 no. 7, 27 March 27, 1984 (1984 -03-27), pages 1468-1473, XP002374061 ISSN: 0006-2960 * abstract * *page 1468, column 1, paragraph 2* scheme I-III			
	CD	"A tRNA aminoacylation system for non-natural amino acids based on a programmable ribozyme", By Bessho et al. NATURE BIOTECHNOLOGY. JUL 2002, vol. 20, no.7, July 2002 (2002-07), pages 723-728, XP002374062 ISSN:1087-0156 *abstract; figures 1,2*			
	CE	"Ribozyme -catalyzed tRNA aminoacylation", by Lee et al. NATURE STRUCTURAL BIOLOGY, NEW YORK, NY, US, vol. 7, no. 1, January 2000 (2000-01), pages 28-33 XP0029239339 ISSN:1072-8368 *abstract; figures 1,3-5*			
	CF	"A General Method for Site-Specific Incorporation of Unnatural Amino Acids into Proteins", by Noren et al. SCIENCE, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, US, vol. 244, 14 April 1989(1989-04-14), pages 182-188, XP002925217 ISSN: 0036-8075 * abstract * *page 182, column 2: Figures 1,4 8			
	CG	"A General and Efficient Route for Chemical Aminoacylation of Transfer RNAs" by, Robertson et al. JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, AMERICAN CHEMICAL SOCIETY, WASHINGTON, DC, US, vol. 113, no. 7, 1991, pages 2722-2729, ISSN: 0002-7863 * abstract; figures 1,2 *			
	CH	"Site-specific incorporation of an unnatural amino acid into proteins in mammalian cells", by Sakamoto et al. NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 30, no. 21, 1 November 2002 ( 2002-11-01), pages 4692-4699, XP002976283 ISSN: 0305-1048 * abstract; figures 1,2 *			

Examiner Signature	Date Considered
--------------------	-----------------

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				<b>Complete if Known</b>	
				Application Number	10/527,156-Conf. #1834
				Filing Date	March 9, 2005
				First Named Inventor	Masahiko Sisido
				Art Unit	1653
				Examiner Name	D. H. Shin
Sheet	2	of	2	Attorney Docket Number	SAE-0031

	CI	"Four-base codon/anticodon strategy and non-enzymatic aminoacylation for protein engineering with non-natural amino acids", by Sisido et al. METHODS : A COMPANION TO METHODS IN ENZYMOLOGY, ACADEMIC PRESS INC., NEW YORK, NY, US, vol. 36, no. 3, July 2005 (2005-07), pages 270-278, XP004997380 ISSN: 1046-2023 * the whole document *	
	CJ	"Facile aminoacylation of pdCpA dinucleotide with a nonnatural amino acid in cationic micelle", by Ninomiya et al. CHEMICAL COMMUNICATING (CAMBRIDGE, ENGLAND) 7 Sep 2003 (2003-9-1), pages 2242-2243 XP009064171 ISSN: 1359-7345 * the whole document *	
	CK	"In Situ Chemical Aminoacylation with Amino Acid Thioesters linked to a Peptide Nucleic Acid" by, Ninomiya et al. JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, AMERICAN CHEMICAL SOCIETY, WASHINGTON, DC, US, vol.126 no. 49, 2004, pages 15984-15989, XP002337183 ISSN:0002-7863 * the whole document *	
	CL	"Simple and quick chemical aminoacylation of tRNA in cationic micellar solution under ultrasonic agitation", by Hashimoto et al. CHEMICAL COMMUNICATIONS (CAMBRIDGE, ENGLAND) 14 SEP 2005, (2005-09-14), pages 4321-4323, XP009064150 ISSN: 1359-7345 * the whole document *	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
--------------------	--	-----------------	--